

BADGER STATE SMOKE SIGNALS

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Single Copy \$2.00

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Portage WI 53901

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AB 368 Passed by legislature. Waiting for Governor signature *YOUR HELP NEEDED*

Good news as reported by Jim Lackore, AD9X, our State Government Liaison:

On Tuesday, January 22, 2002, the Wisconsin State Senate passed, by a voice vote, AB 368 - our Amateur Radio PRB-1 legislation. There was no expressed opposition.

The bill now goes to the Governor for his signature. I have been told that he will sign it, but we ought not to leave anything to chance. I suggest that all Wisconsin Radio Amateur Operators contact Governor McCallum, urging him to sign the bill into law.

Email can be sent to the Governor by going to his website www.wisgov.state.wi.us) and then to the "contact us" page. His fax telephone number is 608-267-8983. Snail mail can be sent to The Office of the Governor, 115 East State Capitol, Madison, WI 53702.

The following is a sample of an email/fax/snail mail to the Governor. Email: wisgov@gov.state.wi.us ed.)

Dear Governor McCallum,

As one of more than 12,000 FCC licensed Amateur Radio Operators in the State of Wisconsin, I urge you to sign AB 368 (Amateur Radio FCC PRB-1 Amateur Radio Antenna Protection Act) which has been passed by the State Assembly and the Senate and sent to you for your consideration..

Wisconsin's Amateur Radio Operators are organized and always prepared to volunteer their equipment and their technical and communication skills to provide reliable backup radio communications in support of Wisconsin state and local emergency governments and law enforcement agencies, the Wisconsin National Guard, and NGOs such

as the Red Cross and the Salvation Army. The record of Ham support during public emergencies in Wisconsin - from toxic spills to natural disasters - has been consistently significant.

However, Amateur Radio Operators cannot function in the pursuit of their hobby, in the advancement of radio communication technology, or as volunteer public servants without antennas. That is why AB 368 - which gives official State of Wisconsin endorsement to the "reasonable accommodation" doctrine established by the FCC in its 1985 PRB-1 ruling - is so important to the Hams of Wisconsin.

Finally, it is important to note that AB 368 gives support and encouragement to a valuable Wisconsin resource without costing Wisconsin taxpayers a "single cent." Thank you for your timely consideration of this matter.

Sincerely,

I'd like to thank all of you who have supported this bill. Your letters have obviously had an impact. This is the last step to passage so your help is appreciated one more time.

We would like to acknowledge this victory due to the tireless efforts of Jim Romelfanger, K9ZZ, S.K. Without his hard work over many years, it would not have been possible. This is a tribute to Jim and we should all be grateful.

73,
Don, W9IXG,
ARRL Section Manager

Donald E. Michalski
4214 Mohawk Drive
Madison, WI 53711
(608)263-4685 (work)
(608)274-1886 (home)
w9ixg@arrl.org
www.w9ixg.eboard.com

BADGER STATE SMOKE SIGNALS

To our Badger State readers, subscribers and participating clubs:

As many of you are already aware, the editor of *Badger State Smoke Signals*, Jim Romelfanger, K9ZZ passed away on December 22, 2001 from a sudden heart attack. Jim's health had been declining during the previous few months.

Jim continued to work on *BSSS* when he was able, and he was able to put out the paper through the October 2001 issue. However, the issues were becoming later each month. Following the completion of the October issue, Jim's problems worsened and he was unable to continue any work on *BSSS*.

With Jim's passing and other issues explained below, The question of continuing the printed edition of *Badger State Smoke Signals* arises. We are planning on continuing a printed edition on a bimonthly basis beginning with the March 2002 issue. We will also continue with an expanded web based edition.

We are looking for help with editing, production, advertising sales and subscription sales. Many people have expressed support for *BSSS*. If you feel you can help please contact Ken Ebnetter, K9EN k9en@arrl.net.

Dave Knaus, N9QA will be working on the web edition. Material for *BSSS* can be sent to Dave Knaus, N9QA n9qa@arrl.net and/or to Ken Ebnetter, K9EN.

Declining subscription and advertising revenue have combined with increasing costs to place *BSSS* in a very precarious financial position. The subscription base has declined from over 1200 at the peak to a current level of less than 600 subscribers. This has caused a loss of some of the bulk mailing discounts and means fewer subscribers to cover the production and printing costs.

We announced in the October *BSSS* that we would be changing to a bimonthly printed edition. At this time the rates for advertising and subscriptions will remain the same per year as before. We will review the rates later in the year after the impact of printing, production and postage costs have been determined.

I want to thank all the clubs and individuals whose support made it possible to produce Badger State Smoke Signals during the past 31 years. *BSSS* has grown, with a lot of hard work by Jim, K9ZZ along with help from many others, from a local Amateur Radio club meeting newsletter to become a nationally recognized state and area publication. With help from the Wisconsin Section amateurs and their clubs we can continue the fine tradition of the past 31 years.

Vy 73,
Kenneth A. Ebnetter, K9EN
Publisher, *Badger State Smoke Signals*

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Check us out on the web at
[Http://www.bsas.org](http://www.bsas.org)



WHAT'S HAPPENING

Swapfests and Other Social Events — Club Meetings Amateur Radio Exam Schedules

Edited by Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage WI 53901 — kenneth.ebnetter@verizon.net

Swapfests And Other Social Events

SUNDAY, March 10, 2002 Wisconsin QSO Party Sponsored by West Allis Radio Amateur Club. Info: www.warac.org

SATURDAY, March 16, 2002 Milwaukee RAC 85th anniversary special event station. (see additional information in this issue)

SUNDAY, March 17, 2002 Jefferson, WI Tri County ARC (TCARC) Hamfest (see ad this issue for more info)

SUNDAY, March 24, 2002 NS9RC Fest. (formerly known as LAMARSfest) Lake County Fairgrounds, Grayslake, IL Contact website www.ns9rc.org (see ad this issue for more info).

FRIDAY-SATURDAY, April 5 & 6. AES SUPERFEST. AES Store, Milwaukee, WI (see ad this issue for details and map)

SUNDAY, April 14, 2002 Stoughton, WI Madison Area Repeater Assn. (MARA) Swapfest. Mandt Community Center, 400 Mandt Parkway, Stoughton WI. Doors open at 8 a.m. Sponsored by MARA/W9HSY, P. O. Box 8890, Madison WI 53708-8890. Info line: 608-245-8890. (see ad this issue for more info and map)

SATURDAY, April 20, 2002 Eau Claire, WI Eau Claire Hamfest. Info: www.ecarc.org. Email: kg9ra@charter.net. (see ad this issue for more info)

SATURDAY-SUNDAY April 27-28 Special

event station from 1400utc-2300 utc operating freq's re: +/-10khz: 3.843, 7.243, 14.243, 21.343 & 28.343. The" USS COBIA" (see additional information in this issue)

SATURDAY, May 4, 2002 Cedarburg, WI 24th Annual Amateur Radio and Computer Swapfest. Sponsored by the Ozaukee Radio Club (ORC). Info: www.qsl.net/orc/swap.html. (see ad this issue)

SATURDAY, July 6, 2002. South Milwaukee ARC Swapfest '02. American Legion Post 434, 9327 South Shepard Ave., Oak Creek, WI.

FRIDAY-SUNDAY, September 20-21-22, 2002 Peoria, IL. Peoria Superfest 2002. Exposition Gardens Fairgrounds, 1601 W Northmoor Rd., off 6300 N. University, Peoria, IL. Contact: Peoria Superfest, PO Box 3508, Peoria, IL 61612-3508. InfoLine: (309) 692-3378. E-mail: w9uvi@arrl.net Website: <http://www.w9uvi.org>

SATURDAY, November 2, 2002 Waukesha, WI AMATEUR RADIO Fest 2002. The Milwaukee Repeater Club Waukesha County Expo Center Forum buildings, 8 a.m. to 2 p.m. Admission: \$5.00, tables \$15 per 8 ft. table. Electricity: \$15. Pancake breakfast 7 a.m. to 9 a.m. Food available all day. Info: www.execpc.com/~mrc. Email: mrc@execpc.com. Telephone: 262-367-3953.

SUNDAY, November 3, 2002 Menasha, WI SWAPMEET 2002. Sponsor: Fox Cities Amateur Radio Club (FCARC). Sabre Lanes, 1330 Midway Road, Menasha, Wisconsin. Seller table setup 6:00 a.m. Open to public 8:00 a.m. EZ Access: Take 47 ramp (Appleton Road Exit) South off US 441, its just a couple of blocks to the 6500 sq. ft. meeting facility at Sabre Lanes. Talk in on 146.52 MHz simplex. Info: Hamfest Phone: 920-733-3113. E-mail: n9rjz@arrl.net. Web:

WWW.W9ZL.AMPR.ORG.

SATURDAY, January 4, 2003 Waukesha, WI 31st Annual Midwinter Swapfest. Sponsored by the West Allis Radio Amateur Club (WARAC). Waukesha County Expo Center Forum. 8 a.m. to 2 p.m. Info: Phil Gural, W9NAW, 414-425-3649. Web: www.warac.org.

As a service to our readers, this section is available without charge to list your upcoming swapfest, hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas. Send information on your event to:



n9ga@arrl.net (Dave Knaus, N9QA) and to: k9en@arrl.net (Ken Ebnetter, K9EN)

Due to space limitations, we cannot carry the full listing of club meetings in each issue. The latest listing was in October 2001. There have been no changes reported since that listing

If you have any changes please sent the to

The Test Point



Amateur Radio Examination Locations

Ken Ebnetter, K9EN. We plan to have an updated listing in the next issue.

March 02, 2002	Blaine, MN
March 02, 2002	St. Paul, MN
March 02, 2002	Oshkosh (Omro), WI
March 07, 2002	Shell Lake, WI
March 09, 2002	Madison, WI
March 14, 2002	Apple Valley, MN
March 16, 2002	Cottage Grove, MN
March 16, 2002	Milwaukee, WI (BE)
March 16, 2002	Loves Park, IL
March 17, 2002	Jefferson, WI
March 19, 2002	Sheboygan, WI
March 19, 2002	Eden Prairie, MN
March 23, 2002	Bloomington, MN
March 30, 2002	Menomonie, WI
March 30, 2002	Tomahawk, WI
March 30, 2002	Appleton, WI
April 06, 2002	Oshkosh (Omro), WI
April 06, 2002	St. Paul, MN
April 11, 2002	Apple Valley, MN
April 11, 2002	Menomonie MI
April 13, 2002	Blaine, MN
April 13, 2002	Madison, WI
April 16, 2002	Eden Prairie, MN
April 20, 2002	Eau Claire, WI
April 20, 2002	Cottage Grove, MN
April 20, 2002	Milwaukee, WI (BE)
April 20, 2002	Loves Park, IL
April 27, 2002	Milwaukee, WI (MRAC)
April 27, 2002	Tomahawk, WI
April 27, 2002	Bloomington, MN
May 04, 2002	Oshkosh (Omro), WI
May 04, 2002	St. Paul, MN
May 09, 2002	Apple Valley, MN
May 11, 2002	Madison, WI
May 11, 2002	Blaine, MN
May 11, 2002	Appleton, WI
May 21, 2002	Eden Prairie, MN
May 18, 2002	Sheboygan, WI
May 18, 2002	Onalaska, WI
May 18, 2002	Loves Park, IL
May 18, 2002	Cottage Grove, MN
May 25, 2002	Bloomington, MN
May 25, 2002	Milwaukee, WI
(MRAC)	
May 25, 2002	Tomahawk, WI
June 01, 2002	Oshkosh (Omro), WI
June 01, 2002	St. Paul, MN
June 08, 2002	Madison, WI
June 08, 2002	Blaine, MN
June 13, 2002	Apple Valley, MN
June 15, 2002	Loves Park, IL
June 15, 2002	Cottage Grove, MN

June 18, 2002	Eden Prairie, MN
June 22, 2002	Bloomington, MN
June 29, 2002	Tomahawk, WI
July 06, 2002	Oshkosh (Omro), WI
July 06, 2002	St. Paul, MN
July 11, 2002	Apple Valley, MN
July 13, 2002	Madison, WI
July 13, 2002	Blaine, MN
July 16, 2002	Sheboygan, WI
July 16, 2002	Eden Prairie, MN
July 20, 2002	Loves Park, IL
July 20, 2002	Cottage Grove, MN
July 27, 2002	Bloomington, MN
July 27, 2002	Milwaukee, WI
(MRAC)	
July 27, 2002	Tomahawk, WI
August 17, 2002	Appleton, WI
September 14, 2002	Onalaska, WI
September 14, 2002	Sheboygan, WI
November 02, 2002	Menomonie, WI
November 03, 2002	Appleton, WI
November 09, 2002	Onalaska, WI
November 19, 2002	Sheboygan, WI

Monthly, 1st Sat.	Oshkosh (Omro), WI
Monthly, 1st Sat.	St. Paul, MN
Monthly, 2nd Thu.	Apple Valley, MN
Monthly, 2nd Sat.	Madison, WI
Monthly, 2nd Sat.	Blaine, MN
Monthly, 3rd Tue.	Eden Prairie, MN
Monthly, 3rd Sat.	Milwaukee, WI (BE)
(September through April)	
Monthly, 3rd Sat.	Loves Park, IL
Monthly, 3rd Sat.	Cottage Grove, MN
Monthly, 4th Sat.	Bloomington, MN
Monthly, Last Sat.	Milwaukee, WI
(MRAC)	
(except Mar., Jun., Aug., & Dec.)	
Monthly, Last Sat.	Tomahawk, WI
(January thru October only)	

GENERAL RULES FOR MOST EXAMINATIONS Be sure to check with sponsors before going to an examination session. There may be changes and/or errors in the dates or information given. Some examinations require filing an FCC or NVEC Form 605 and advance registration at least 30 days before the exam date. Some VE teams permit walkins. Check with the sponsor.

Many hamfests and swapfests offer examinations. A hamfest entrance fee should not be charged if you come only to attend the examination. To register in advance, you must get a copy of the current FCC Form 605, and fill it out completely and correctly. Got your form from the FCC as instructed below, or from the American Radio Relay League, 225 Main Street, Newington, CT 06111. Please send an SASE if you request a form from the League. FCC Field Offices seldom stock forms. You can also get a form from

<http://www.fcc.gov/formpage.html>
or
<ftp://ftp.fcc.gov/pub/Forms/Form605>.

A form by FAX is available at (202) 418-0177 (request Form 000605). The FCC Forms Distribution Center will accept orders at (800) 418-3676. Form 605 has a main form, plus a Schedule D with two parts (for Vanity and Physician's Certifications). Forms can also be obtained from the sponsoring group.

See QST, W1AW bulletins, or The ARRL Letter regarding any annual exam fee changes. ARRL/VEC no longer gives a free code test or Element 2. Test fees: The ARRL/VEC has set its 2001 test fee at \$10.00. FCC requires applicants to show their original amateur license or CSCE to the VE team. You must also have a good copy of your license or CSCE. A copy of your license or CSCE must be attached to your FCC form 605 and most VE teams need a copy for their records. One good CSCE copy is sufficient. You are also be required to have a photo ID, or two other forms of ID. Contact the VE team for details.

Technician class licensees must show proof of testing before March 21, 1987, in order to upgrade to General with a code test only. Proof must be either in the form of a pre-3/21/87 license document or a "Letter of Verification of Technician License Held Prior to 1987" as requested in writing from the FCC, 1270 Fairfield Road, Gettysburg, PA 17325-7245. For those with internet access, a listing of exam sessions is available from:

<http://www.arrl.org/arrlvec/examsearch.phtml>
By checking this page, you can find registered VE sessions anywhere in the US and some overseas. You can search by country, state or zip code. The listing is not specific to any particular VEC. It is a master database. Thanks to Bart Jahnke, W9JJ, ARRL/VEC

Badger State Smoke Signals

Amateur Radio Education and Information

CHAIRMAN/PUBLISHER: Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901. Telephone (608) 742-3560. e-mail to: kenneth.ebnetter@verizon.net

EDITOR:

TREASURER: Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage WI 53901.

EDITORIAL BOARD: Ken Ebnetter, K9EN; Don Evenson, K9JYX.

Subscription Rate

1 year (6 issues—bi-monthly)\$13.95

A subscription form is in this issue. Special club package reduced rates are available. For information, contact Ken Ebnetter, K9EN.

When to Send It

The closing date for each issue is the first of the month before the issue date. For example, the closing date for the May issue is April 1. The only exception is for participating clubs' minutes. Participating clubs are requested to send their material no later than FIVE DAYS after the club's meeting. For example, if a club meets on the 4th of the month, the material should be sent no later than the 9th of that month. This material is to be sent to the Editor.

Where to Send It

Address changes and corrections, and exchange papers should be sent to Ken Ebnetter.

Editorial material, photographs, and feature articles should be sent to Ken Ebnetter, K9EN.

Web page material should be sent to n9ga@arrl.net (Dave Knaus, N9QA).

Inquiries about advertising should be directed to Ken Ebnetter.

Club, swapfest, and Test Point information should be sent to Ken Ebnetter.

Swapfest ADS should be sent to Ken Ebnetter, K9EN no later than eight weeks before the events date.

Subscriptions should be sent, with check or money order, to Ken Ebnetter.

Conditions for Reprinting or BBS Posting Material from Badger State Smoke Signals

Permission is hereby granted to reprint articles or posting articles on radio or telephone bulletin boards from *Badger State Smoke Signals*, providing credit is given to the original author, publication in which the article first appeared, and to *Badger State Smoke Signals*.

This newspaper is produced by volunteer radio amateurs, and is non-profit. This newspaper is mailed from Portage, WI 53901.

Badger State Smoke Signals is incorporated as a Wisconsin non-stock, non-for-profit organization.

Editorial Disclaimer

The opinions expressed in editorials, guest editorials, columns, articles, and letters from readers are the opinions of the authors only, and do not, unless otherwise stated, express or imply endorsement by *Badger State Smoke Signals*, or by any other individual or organization.

SPECIAL EVENTS

W9RH, Milwaukee Radio Amateurs' Club commemorating its 85th anniversary, 0000Z to 2400Z March 16, 2002 on 28.470, 14.270, 7.260 and 144.220. For a certificate send QSL and a 9x12 SASE to W9RH/ Tom Schulte 8802 Castle Court, Franklin WI 53132. For a certificate via e-mail send QSL information to W9RH@arrl.net"

Contact person for the event is Tom Schulte,KB9RLB, Phone 414-529-2512
E-mail kb9rlb@wi.rr.com

W9DK (Mancorad Amateur Radio Club) of Manitowoc, WI. will be operating from aboard the WWII Memorial Submarine "USS COBIA AGSS-245" celebrating Memorial submarine radio room reactivation weekend. Submarine radio rooms on as many as 35 memorial subs will come alive with ham activity during this time. This event is organized by the Submarine veterans amateur radio association to

Commemorate the anniversary of the submarine service. Date and time: April 27-28 from 1400utc-2300 utc operating freq's re: +/-10khz: 3.843, 7.243, 14.243, 21.343 & 28.343. The" USS COBIA" is a gato class submarine that served in WWII and is now docked in Manitowoc, WI. as a floating museum. During its six(6) war patrols she sank 13 Japanese vessels to account for a total of over 18,000 tons of Japanese shipping. Made in Groton,CT. the USS COBIA was towed from Milwaukee, WI. to Manitowoc, WI. on August 17,1970 and dedicated as a memorial to Submariners throughout the world and to the people who constructed the 28 Manitowoc Submarines during WWII.

For a "USS COBIA" QSL card send your QSL and a #10 SASE to:
Fred Neuenfeldt W6BSF
4932 So. 10th St.

2002 WISCONSIN QSO PARTY

1800Z MARCH 10—0100Z MARCH 11, 2002
Sponsored by the West Allis Radio Amateur Club

For full rules and other information including entry blanks and multiplier list see: www.warac.org

BSSS PRINTING DEADLINES

With Badger State Smoke Signals changing to a bi-monthly publication, there will be some necessary changes in our scheduling requirements.

If you have advertising for BSSS, get the material to us a month before the publication month if at all possible. If you must be late with advertising, let us know what the space requirements are so we can reserve the space for you.

If you are submitting items for publication in BSSS get them to us as soon a possible. If they arrive after the 15th of the month before the publication month, we may not be able to get it in. Also, if you expect to be late let us know what the space requirements will be.

Material for the printed edition should be sent to Ken Ebnetter, K9EN. Items for the web edition should be sent to Dave Knaus, N9QA at n9qa@arrl.net It will be appreciated if you will send the material to both of us as it will often be used in both editions.

My address is:
Kenneth A. Ebnetter, K9EN
822 Wauona Trail
Portage, WI 53901-1402

Telephone: (608) 742-3560
Fax (608) 742-1688
e-mail:
kenneth.ebnetter@verizon.net or
k9en@arrl.net

The old e-mail addresses for smoke-sigs and kebneter are no longer valid addresses. We are looking into some other address additions and changes and will post the on the web site as well as in the printed edition.

A number of clubs are sending complimentary exchange newsletters to BSSS. They should all be sent to K9EN at the above address. If you are receiving a complimentary copy of BSSS that should be going to another member of your club, let us know so we can make the proper address correction.

The next issue of BSSS will be the first of May, so advertising material should arrive by the first of April and text material by the 15th of April. If there are any corrections to our swapfest, club meetings, VE examinations or other changes send the asap so we can make the changes on the web site without waiting for the printed edition.

73, Ken Ebnetter, K9EN

N0KAX, 2145 Delicia Drive, Dubuque, IA 52001.
(319) 557-9149.

Good Hope Road, Milwaukee. Swapfest and Superfest tests are held in hall across from the Waukesha Expo Center. For additional information, call (262) 797-MRAC. Bring along your original license, CSCE (if any), and one (1) good quality photocopy of each, plus two forms of identification, such a driver's license, etc. Also required is \$8.00 for the exam fee. Walkins are welcome. To register in advance, use a postcard. Print the grade of license you are applying for, your name, address, and telephone number, and send the postcard to MRAC/VEC, Milwaukee Radio Amateurs Club, P.O. Box 070695, Milwaukee, WI 53207. Contact: John G. Kraak, 262-797-6722.

Milwaukee, WI Badger Examiners (W5YI VEC) September thru April, every third Saturday morning, 9:30 a.m. to noon. Badger Examiners group tests at AES (Amateur Electronic Supply) at 60th and Good Hope, Milwaukee (use the entrance numbered 5730). Exams are given at the old Sterman Printing shop, just 300 feet west of the AES store. Novice to Extra are offered, and all test materials are provided. Fee is \$10.00, and bring your original license, or CSCE if needed. Also available are Commercial license exams GROL (General Radiotelephone license), GMDSS, Telegraph, Etc. Fee is \$35.00. For more information call Gary Sharbuno, WI 9M at (414) 355-0237.

Onalaska, WI Riverland ARC (ARRL/VEC). ARRL VEC. May 18, 2002, September 14, 2002 and November 9, 2002, 9:00 a.m., Onalaska Community Center, 515 Quincy St., Onalaska. Contact: Roger Reader, KA9BKK, 608-783-0723, readers@centurytel.net.

Oshkosh, WI (Omro)Oshkosh VE Team Amateur Radio exams monthly on the first Saturday. Registration begins at 8:30 a.m. and exams WI II be given from 9 a.m. until noon. Omro Community Center, 130 W. Larrabee, Omro, WI . Walkins welcomed. Bring a good quality photocopy of your original license and any other necessary documents such as a CSCE, etc. The first session WI II be through W5YI/VEC, and then sessions WI II alternate between ARRL/VEC and W5YI/VEC. The exam fee is \$6.65. For more information, please call Dick Lemme, K9FA, at (920) 235-0987, e-mail: lemme@vbe.com, or write Dick at 826 Jefferson Street, Oshkosh, WI 54901.

Racine, WI ARRL VEC Monthly - first Saturday, except January, July, and August. Monthly exams are given 9 to 11 a.m. at the Faith United Methodist Church, 1013 Harmony Drive, Racine. Walk-ins are permitted. Talk in on 147.87/27. Inquiries and registrations should be directed to Robert N. Jensen, W0WLN, 5616 Cambridge lane #6, Racine, WI Telephone (262) 886-8551. w0wln@juno.com.

Sheboygan, WI Sheboygan County ARC (ARRL/VEC). Tuesday, March 19 - 6:30 PM, Saturday, May 18 - 8:30 AM, Tuesday, July 16 - 6:30 PM, Saturday, September 14 - 8:30 AM, Tuesday, November 19 - 6:30 PM. Test sessions are held in the Red Cross Building, 2032 Erie Avenue, Sheboygan, WI. Signage on the front door WI II direct candidates to the proper room in the building. The test site is handicap accessible. While walk-ins are welcome, a phone call or e-mail ahead of time would be appreciated. Applicants are reminded to bring the customary photo ID, CSCEs, current/former licenses, other supporting documentation, and test fee. Contact: Michael J. Musiel, 920-946-1476. Email: k9sj@arrl.net.

Shell Lake, WI NORWESCO ARES/RACES (ARRL/VEC). Mar. 7, 2002, 7:00 p.m. Washburn County Law Enforcement Center, lower level meeting room, 421 Hwy 63, Shell Lake. Walk-ins allowed. This is for all classes of license. Persons Wishing to upgrade an existing license should bring a photocopy of it to submit. Also need a photo ID to prove who you are. The fee is \$10.00. Contact: Richard J. Eckenrode, 715-466-4109. Email: cen34109@centurytel.net. Web Site: fp1.centurytel.net/norwesco/.

Tomahawk, WI Tomahawk ARRL VE Team (ARRL/VEC). Last Saturday of every month, January thru October. Registration at 8:30 a.m. and testing starts at 9:00 a.m. For location or other information, inquire on 145.43 MHz. repeater or contact: Terry Collins, KB9AUP, W6564 Highway 8, Tomahawk, WI 54487. Telephone (715) 453-4633, dcollins@newnorth.net.

St. Paul, MN Saint Paul Radio Club (SPRC) First Saturday of the month, 8:30 a.m. Test Site: St. Paul Technical College, 235 Marshall Ave., St Paul, MN. Ed VanCleave, W0VC, (612) 636-0108. www.qsl.net/sprc/index.html.

Houghton, MI George R. Thurner, W8FWG, Team Liaison to ARRL for CCRAA/HARC Clubs, E-Mail: gthur@up.net.

Rockford, IL Northern Illinois Volunteer Examiners (W5YI VEC) Third Saturday of every month. 9:00 a.m. to noon. No new applicants after 11:00 a.m. Walkins welcome. Held at North Suburban District Library, 6340 North Second St. (Hwy. 251), Loves Park, IL. Rusty Cordell, WB9QYV, 1823 Hulin St., Rockford, IL 61102-2619. (815) 968-0080. e-mail: WB9QYV@aol.com.

Dubuque, IA Dubuque Hamfest Carl Clark,

Appleton, WI Fox Cities ARC (ARRL/VEC) All regular test sessions are held at the American Red Cross Building in Appleton. Testing starting at 8 a.m. No walk-ins after 9 a.m. For information, contact George R. Croy, W9MDP, 2113 W Twin Willows Drive, Appleton, WI 54914. (920) 730-0967. Email: w9mdp@arrl.net.

Eau Claire, WI Eau Claire Amateur Radio Club Saturday, April 20, 2002: 9 a.m. to 11:30 a.m., Eau Claire Hamfest. Held at Eau Claire Exposition Center, Lorch Avenue, Eau Claire. Walkins welcome. Examination session coordinator: Steve Bluem, KA9OMY, ka9omy@arrl.net. Telephone: 715-839-6509. www.ecarc.org. w9eau@ecarc.org.

Fond du Lac, WI Fond du Lac ARC (ARRL/VEC). Feb. 23, 2002. Community United Methodist Church, 701 Minnesota Ave., North Fond du Lac. 9:00 a.m. Walk-ins allowed. Contact: Douglas J. Schultz, 920-922-3088, schultz74@charter.net.

Fort Atkinson, WI Tri-County Amateur Radio Club Second Thursday monthly except June to August, 7 p.m. D Wight Foster Public Library in Fort Atkinson. Contact: Glenn Eisenbrandt, WA9VYL, 920-563-6502, or John Satterlee, WA9SAB, 920-563-6381.

Friendship, WI Adams County ARES (ARRL/VEC). Exams given from 2 p.m. to 5 p.m. at Adams County Electric Cooperative, Community Room, 401 E. Lake St. (CTH J), Friendship, WI . Exam fee: \$10.00. All candidates should bring appropriate identification which bears a photo and signature. Candidates must present the original document of any current Amateur Radio license or CSCEs. A photocopy of the original documents must be sent along With the session paperwork. Walk-ins are permitted, but advance registration is appreciated. A candidate Wishing to retest for the same element Will be allowed to do so, provided the VE team has appropriate time and an additional exam fee is paid. There are no free exam elements. Candidate registration may be submitted to Wayne Hemrbook, KB9NLQ, at 608-339-4169. Questions may be directed to Karl Simonson, KS9E, at 847-244-0802 or 847-778-0247.

Hudson, WI St. Croix Valley AR Testing Col. St. Croix County Emergency, Government Center by jail, Carmichal Rd. lower level, Hudson, WI 54016. Call for time and walk-in info, Contact: Gregory Miller (715)386-9857.

Jefferson, WI (ARRL/VEC) March 17, 2002. Tests at 9 a.m. American Legion Post 164, located at 321 N. Main St., Jefferson, WI . Parking in back at the True Value Hardware. Enter Main Street off hwy 18 at the Stop Light and turn North. Or from I-94 take hwy 26 into Jefferson and look for the Flag in front and a few blocks before Hwy 18. Bring picture ID and copies and originals of licenses and CSCE's. If you enter from the rear you can go upstairs to the test if the Bar is open. Test fee \$10 to ARRL/VEC. Please note that the Tri-County Amateur Radio Club March 17 Hamfest WI will be located at the Jefferson County Fairgrounds. Talkin on 145.49 Repeater. Information: www.cmdline.com/tcarc/.

Madison, WI First Saturday monthly: 8 a.m. to 10 a.m. Space Place, 1605 South Park Street, Madison. Please bring a picture ID, your original license, a copy of your license, and the original and a copy of any relevant CSCEs, and a check for \$10.00 made out to the ARRL/VEC. No appointments are necessary to take exams. Exams start promptly at 8 a.m. Questions may be directed to Tim Czerwonka, WO9U, at 608-239-3696 (home phone) or sent to wo9u@arrl.net.

Medford, WI (ARRL/VEC) Take Ogden St. west off of Hwy. 13 to the courthouse. Park on the street or in the parking lot on the south side of the courthouse. Use one of the two entrances there. Watch for the signs when you get into the building. Talk-in on the 147.15 (+600 KHz, 114.8 PL) repeater. Walk-ins welcome, but if you know you'll be attending, please let us know. Contact: Tom Hrdina, N9GEN, 2373 Willow Ave., Medford, WI 54451. (715) 748-4054. E-mail: Mike, N9GHZ, muzikman@pcpros.net.

Menominee, MI Marinette-Menominee Amateur Radio Club April 11, 2002 - 5:30 p.m. Location: The cafeteria of Bay Area Med Center, US-41 in Menominee. Building located next to KFC just off the Interstate Bridge. All classes given. Advance notice preferred, but not required. Test fee is \$10 with two pieces of identification required. Contact Jeff Rymer, N9PQU at jrymer@ez-net.com or Ed Engleman, KG8CX, at dxer@cybrzn.com. We Will monitor the 147.000 (107.2 pl) repeater in event further directions or info is needed.

Menomonie, WI Mar. 30, 2002, 9:00 a.m. (walk-ins allowed). ARRL/VEC. Location: NE-WUW-Stout Communications, Millennium Hall, Broadway & 10th Ave., Menomonie, WI . Use the Northwest entrance. Walk-ins only. Contact: James P. Ley, 715-235-3998.

Milwaukee, WI Milwaukee Radio Amateurs' Club (MRAC VEC) Last Saturday, except in March, June, August, and December. In addition, we test at the West Allis RAC Swapfest in January and at Superfest in April. Regular tests are held 9:30 a.m. to noon at Amateur Electronic Supply (AES), 5710 W.

Wisconsin Nets Association Ltd.

Dean R. `Herriges, KB9ROB, Secretary

WISCONSIN NETS

Net	WNA	Freq.	UTC	CDT	Manager
BWN	YES	3985		1200	0600 W9RCW
BEN	YES	3985		1800	1200 KE9VU
WSBN	YES	3985		2330	1730 K9FHI
WNN	YES	3723		0000	1800 KB9ROB
WSSN	YES	3645		0030	1830 N9BDL
WIN/W	YES	3662		0100	1900 WB9ICH
WIN/L	YES	3662		0400	2200 W9UW
RCRA	NO	01/61		0130	1930 KA9OMC
(MondaysCST—Menomonie Area)					
Green Bay Area	NO	72/12		0345	2145 WB9NRK
ARES	NO	4.65/5.25		0300	2100
(South East/South Central Wisconsin)					

N9BDL	0	25	75	1	101	W9RSX	1	1	9	0	11
W9UW	1	61	32	3	97	W9PVD	0	2	1	2	5
KC9B	0	29	67	0	96	P S H R SUMMARY					
N9KHD	0	40	44	1	85	DECEMBER 2001					
AG9G	0	12	62	0	74	CALL	1	2	3	4	5
K9FHI	0	26	43	0	69					6	7
KE9VU	0	17	33	0	50	N9VE	40	3	0	196	0
KB9ROB	0	37	3	6	46	W9RCW	31	0	0	208	0
WA7UVX	2	12	7	8	29	K9JPS	34	3	3	194	5
W9BHL	0	1	26	1	28	K9FHI	60	24	24	0	0
WB9ICH	0	24	2	0	26	WD9FLJ	60	0	24	4	4
KN9P	2	10	1	9	22	N9BDL	60	24	24	1	0
AA9BB	1	1	18	0	20	K9LGU	60	12	24	1	18
WD9FLJ	4	5	6	4	19	W9CBE	60	24	24	6	0
N9JIY	1	3	8	1	13	N9TVT	60	24	24	2	0
						AG9G	60	24	18	0	0

Mancorad Radio Club

Theresa Hartlaub, KB9KXE

Secretary

P.O. Box 294 • Manitowoc, WI

54221-0204



2-Meter Repeater: 146.01 Input/146.61

The Mancorad Radio Club held their monthly meeting on 2/13/02 at the club shack off Waldo Blvd. Meeting was called to order at 7:31 p.m. by President Fred (W6BSF). The Jan. meeting minutes were summarized by Sec. Theresa (KB9KXE) and approved by the membership in attendance. Also Treas. Dick (N9QFY) gave the treasurer's report which was also accepted by all.

A thank you card was read by Pres. Fred from the local American Red Cross in regards to the 100.00 we sent to them in the name of Chuck Scholten. Another long time member was remembered with silence. Ervin Busse (W9OMO) recently passed away. He will be greatly missed as he was an active member in the club. Flowers were sent for the funeral.

The club has received many of the awards and memorabilia of Chuck Scholten. Also 2 hts were also given to the club. Fred has made up a picture frame with some of the awards Chuck received during his many years of ham radio.

It has been brought up as a possibility for having a joint Hamfest with Sheboygan and Calumet counties. More discussions will be held on this.

There are many events coming up this summer. Following are some of these: U.S. Cobia event, April 27-28. Those choosing to spend the night will present a short program on ham radio to the boy scout troop staying over on the sub. Also the weather spotter class has been set for April 17th at 7:00 p.m. in Green Bay at the National Weather Service. We will also get a tour of the building after the class. Contact Fred if you have not already signed up. More information at the next meeting.

A sign up sheet for helping at the first brat fry was sent around. It will be on May 10-11 at Green Tree Market. Other fries will be on July 26-27 at Piggly Wiggly and Aug. 9-10 at Green Tree Market. Please be generous with your time.

James (KB9GOX) reminded all that the

Kewaunee Bike Race will be held on July 20th. They are looking for around 15 volunteers, as in the past. This may also coincide with the Leukemia Bike-a-thon which Steve (N9PBL) coordinates. We will have to check dates to be sure. Both are events that the club has in the past supported.

President Fred reported that the Nuclear Drill held on Feb. 12th went very well and he thanked all the volunteers who helped. They were: Fred (W6BSF), Red (N9GHE), Travis (KB9YRC), Len (N9QFO), Shawn (KC9AAH), Roger (W9NPX) and Denise (N4WGK).

Our attendance drawing was held. Hub (W9OUT) won the 6.00 jack pot. The pot now goes to 5.00

Ron Shimek once again gave a very informative program about audio. He had a lot of props and pieces for everyone to look at. Thank you Ron for once again sharing your knowledge with us.

Meeting adjourned at 7:50. Next meeting will be held on March 13th at the club shack at 7:30. Board meeting at 6:30.

Respectively submitted for approval, Theresa (KB9KXE) , Secretary

MEMBER ATTENDANCE:

K9HAG Ken	KA9EAZ Dan
KA9WYK Carl	KB9GOX James
KB9GOY Mary	KB9GRC Tom
KB9INK Bob	K B 9 K X E
Theresa	
KB9KXF Gene	KB9YRC Travis
KC9AAH Shawn	KC9ARV Ray
KF9G Bill	KK9SJ Mike
N4WGK Denise	N9AWG Rahlf
N9FVZ Dan	N9GHE Red
N9QFO Len	N9QFY Dick
N9VIA Oran	N9WUN Chuck
N9XEZ Bill	W6BSF Fred
W9NPX Roger	W9OUT Hub
WB9DQD Gene	WB9MFB Ron
WB9VTM Lyle	WB9VYO Vic

Wisconsin Valley Radio Association

Rich Nesbitt, N9WPH, Secretary

P.O. Box 363 Wausau, WI

Meeting Minutes of 5 February 2002, at Marshfield Clinic - Wausau Center.

Meeting called to order at 7:00 pm by Vice President Myron Oestreich - KB9STB

Program: The program for this meeting consisted of a very informative Powerpoint Presentation by Mike KB9VBR. The presentation, titled "The APRS Network", has been put together to take to other clubs and organizations to help explain what APRS is, how it works, and how it is used by WVRA members. The presentation also covered how APRS can be used to support ARES activities. Some of the topics covered were: APRS software and hardware, position reporting, messages, maps, weather stations, tracking mobile and portable stations, Internet I-gates, NWS watches & warnings, APRS satellites, and more.

Present: K9MCZ, N9MEA, KB9STB, KB9VBR, KC9AEJ, W9GLG, N9PHC, WA9NBC, N9SDL, N9MO, N9TTA, N3FDE, KB9ZOF, N9LIA, KB9YPS, N9UAG,

KC9NW, KB9RXA, KB9OPQ, KB9JMB, KC9ANA.

Secretary's report: Previous meeting notes as published in Badger State Smoke Signals and/or posted on the WVRA Web Site home.dwave.net/~wvra

Motion to accept: N9MO Second: N9LIA

Treasurer's report:

Motion to accept: N9MO Second: W9GLG

Old Business:

1.. The club 220 MHz antenna hardline has been repaired and the old antenna is working fine. We are still planning to build a new antenna to replace the old one and install it in the Spring of 2002.

2.. The Badger State Winter Games and the Winter Special Olympics X-C Skiing events that the WVRA assists annually were cancelled this year due to lack of snow cover. Thanks to all who volunteered to help at these

(Continued on page 6)

WISCONSIN SECTION STM REPORT January 2002

Who cares?

Be careful. Although what we do is a hobby, we take pride in doing it right. Take care to write your traffic with a proper preamble, correct address, phone number, and accurate check.

Spend the extra moment to jot down the names of operators with whom you work. Get their calls right. Making an effort to remember will help others to know that their help and cooperation is truly appreciated.

When you are copying a message, do not be afraid to ask for fills. The sending station wants to pass the message correctly, too, and has no idea what you may be going through to copy. The QRM, QRN, cat jumping on the desk, spilled coffee, drifting receiver, ringing phone, or call from your spouse is assumed by the sender who will gladly repeat what you need.

Care enough to fill in as net control when the regular operator isn't on frequency. Check out the hints on www.wna.eboard.com so you'll be ready when the opportunity is presented.

As a net control, it would be good to care about the time of those checked in. Try to be efficient but always be friendly. Remember to handle traffic first. Stand by frequently for check-ins, always listing the outstanding traffic before you do. If you move off net frequently to handle traffic, be sure you aren't landing on an occupied spot. Since the receiving station calls first, that operator should ask if the frequency is in use before calling.

In your club's training sessions or classes for hams-to-be, don't neglect the public service aspects of the hobby. Teaching the ARRL message format is as easy as Ohm's Law.

We care to get the message through, to do it quickly and accurately. We support this public service aspect of our hobby because we care about those we serve. And we care about each other during these laudable pursuits. Take care.

WISCONSIN SECTION STM December 2001

We have all been saddened by the loss of fellow hams such as WB9JJP, K9ZZ, and others in Wisconsin who have become silent keys during the past year. As we honor their memory, and recall the good they have contributed to the hobby, perhaps we can take additional inspiration from their gifts to ham radio in Wisconsin.

It should be noted that we don't pay tribute to their financial success, recall their equipment or even their good signals on the bands - but we remember their spirit, their generosity, giving of their time and talents. Whether he was helping another ham with a technical question about radio or automotive operation, or handling eastern Wisconsin traffic, Tom gave freely of himself.

Whether he was covering something for Badger State Smoke Signals or spearheading the circus train expedition, Jim was helping others and helping Ham Radio.

Time and energy. Yes, it takes time to check into a net. In order to fit into the National Traffic System, many nets are scheduled at disruptive times for family events. Sometimes, checking in isn't too rewarding, since there may be no traffic coming in your direction. The messages may have little significance other than to exercise the system. There are those who question the value of traffic handling in the era of the Internet and cell phones.

Nevertheless, stations continue to test their equipment, support traffic nets, and practice the skills of message handling, because they know from experience how important those skills could be.

Nets continue to thrive because they provide the training and discipline operators need to stay in shape; they maintain a system that has proven its effectiveness. The operators who check in to nets, function as net control, or work as liaison to other

NET SUMMARY January 2002

NET	QTC	QTR	SSNS	NM
BWN	1250	1592	2325	31
BEN	840	48	884	31
WSBN	714	74	1002	31
WNN	306	11	425	31
WSSN	234	17	330	31
WIN/E	281	68	322	31
WIN/L	250	50	335	31
totals	3875	1860	5623	217

STATION ACTIVITY SUMMARY Wisconsin Section January 2002

STN	ORIG	RCVD	SENT	DLVD	TOTAL
W9IHW	0	368	45	280	693
K9JPS	0	315	34	295	657
W9YPY	0	223	291	0	514
W9RCW	0	220	36	218	474
N9VE	0	195	28	191	414
K9GU	0	187	31	188	406
W9CBE	0	60	70	2	132
K9LGU	0	73	30	1	104
N9BDL	0	27	63	1	91
N9KHD	0	39	41	0	80
K9FHI	0	26	42	0	68
AG9G	0	10	54	0	64
N9CK	0	30	30	0	60
KG9B	0	9	43	0	52
KE9VU	0	17	35	0	52
W9YCV	2	14	28	7	51
WA7UVX	3	19	16	5	43
KB9ROB	0	33	3	0	36
W9UW	0	28	5	0	33
W9BHL	0	0	33	0	33
AA9BB	0	0	28	0	28
WB9ICH	0	17	2	0	19
W9RSX	0	2	8	2	12
WD9FLJ	3	3	4	2	12
N9JIY	0	0	8	0	8
K9UTQ	0	1	5	0	6
W9PVD	0	0	1	0	1

PSHR January 2002

CALL	1	2	3	4	5	6	7	8	T
K9JPS	33	15	6	295	0	10	0	0	372
W9RCW	31	0	0	218	0	30	0	0	279
N9VE	42	6	0	191	0	30	0	0	269
K9FHI	60	24	24	0	0	10	0	0	148
WD9FLJ	60	3	24	2	3	20	0	0	142
N9BDL	60	24	24	1	0	30	0	0	139
W9CBE	60	24	24	2	0	20	0	0	130
W9YCV	60	24	24	7	2	10	0	0	127
N9TVT	60	24	24	1	0	10	0	0	119
K9LGU	60	9	24	1	0	20	0	0	114
AG9G	60	24	18	0	0	10	0	0	112
WA7UVX	60	0	24	5	3	10	0	0	102
KG9B	35	12	0	0	0	10	0	30	87
W9RSX	53	18	0	2	0	10	0	0	83

nets, are doing just what Tom, Jim, and others have done. They are giving unselfishly of themselves.

A summary of our 2001 section net activity follows. This compares last year's check-ins and traffic with this year's. The check-ins are almost the same, but traffic has dropped about 16%. The 2545 sessions lasted 1060 hours (44 days). 70% of the traffic has handled on phone with the remaining 30% on CW. Packet was a useful adjunct.

From the first yawning weather report on the BWN to the last GN after Late WIN, we find hams who care, who give of their time and skills to help maintain a system for serving the public. Thanks to all who keep our nets functioning so well. 73 - K9LGU/STM

NET	QNI	QTC	QTR	SSNS	NM
BWN	15434	14324	~	19638	18190
BEN	5860	5750	~	758	766
WSBN	6725	7237	~	663	870
WNN	1665	2062	~	204	154
WSSN	2765	2872	~	296	282
WIN/E	2677	2656	~	1002	916
WIN/L	2320	2538	~	684	687
totals	37446	37439	~	23245	21865

MONTHLY NET ACTIVITY SUMMARY DECEMBER 2001

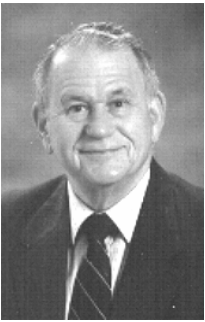
NET	QNI	QTC	QTR	SSNS	NM
BWN	1209	1539	2325	31	W9IHW for W9RCW
BEN	491	87	882	31	KE9VU
WSBN	759	131	944	31	K9FHI
WNN	242	27	376	30	KB9ROB
WSSN	241	32	343	30	N9BDL
WIN/E	281	77	356	31	WB9ICH
WIN/L	273	70	385	31	W9UW
totals	3496	1963	5611	215	

STATIONN ACTIVITY SUMMARY DECEMBER 2001

STN	ORIG	RCVD	SENT	DLVD	TOTAL
W9IHW	0	423	35	379	837
W9RCW	0	211	33	208	452
W9YPY	0	193	252	0	445
K9JPS	0	202	30	194	426
N9VE	0	199	28	196	423
K9GU	0	187	27	190	404
N9TVT	0	97	283	2	382
W9CBE	0	98	95	6	199
K9LGU	18	59	73	1	151

The Computer

By Stan Kaplan, WB9RQR • 105 Martin Drive
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(262) 284-9346
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No. 96. Is the Floppy Dead?

- by Stan Kaplan, WB9RQR
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Well, not quite, but it is on its way out. Floppies have some disadvantages. They hold limited amounts of data – today’s common version holds only 1.44 Mb. Another disadvantage is that they are only temporary storage media. Anyone who trusts the integrity of a critical file on a floppy placed there more than a year ago is playing with fire. Oh, your files might be just fine after even three years, but don’t bet on it. The microscopic magnetic domains tend to weaken with age and even bleed into adjacent tracks, so it is not a way to store critical files unless you refresh them (write them again) every year or so. That will remagnetize the domains. However, the magnetic properties of a floppy can themselves be a pitfall. Stick one up on your refrigerator with a magnet and you are sure to instantly destroy the data. Place one too near an active “wall wart” (one of those little plug-in transformers that power everything these days) and the data will go poof. Place a floppy closer than 6 inches away from your computer monitor for any length of time and the data will go poof.

On the other hand, they are quick and easy to use. “Sneaker Net” is the nickname for using them to transfer files from one computer and another (as opposed to a real network where two or more computers are cabled together to share data). That is one of their handiest features. Another is that they are quite practical for creating a quick backup for that letter you just wrote to your credit bureau, or whatever.

Now, wouldn’t it be nice if you could do that with CD-ROMs? CD-ROMs are non-magnetic (optical) media, and passing a magnet over them will not alter the data they hold. You can even pin them to the refrigerator with a magnet (though that is not recommended, because you might scratch the surface, and that can destroy the data). They hold huge amounts of information – 650 Mb each or more, depending on the type you buy. That figures out to the equivalent of 450 floppies worth of data. Moreover, they are inexpensive. You can buy CD-Rs today for 30¢ each or less. The data written to them is said to be good for between 10 and 100 years, depending upon the brand.

Yes, wouldn’t it be nice if you could just drag a file from a folder on your hard drive to a formatted CD-ROM? Well, you can. The Adaptec software company (now called Roxio), which is the clear leader in CD-ROM writing software, has made it a snap.

Easy CD Creator 5 from Roxio will format a CD-R (write once) or CD-RW (write, erase and rewrite many times) for you using technology called UDF. UDF stands for Universal Disk Format. When you format a CD using CD Creator, it copies the UDF Reader to it. This then allows you to read and write files

to and from the CD just the same way that you do these tasks with a floppy or hard drive. In other words, you can drag and drop a file onto the CD drive letter, and it will be copied just as if that drive letter was a floppy drive.

I just did it. I formatted a CD-R disk, which took 18 seconds. Thereafter, I copied my entire 2001 Computer Corner folder from my hard drive to the CD-R, by just dragging and dropping the folder to it. It seemed to take less than a second to finish copying about 1.2 Mb worth of files. Slick and quick!

Now then, it is not totally like working with floppies. If you format a CD with CD Creator, you cannot just push the eject button to get it out (CD Creator locks the drive to prevent data loss). You must first select from among three choices before CD Creator will eject the disc. 1. Leave the CD as is (ready for adding more files when you put it in later). Note that a standard CD-ROM drive will not be able to read the CD in this state. 2. Close the CD to UDF. It can then be read in most CD-ROM drives, but, it will need to be opened later when you put it back in before more files can be written to it. 3. Close the CD so that it can be read on any computer. Once you have selected from among these three, CD Creator will eject the CD.

I generally keep mine open (choice 1) so that I do not need to waste time re-opening it every time I wish to copy files to it. Even though it is open and cannot be read from a standard CD-ROM drive, the drive that I used to create it can both write to it and read from it just fine. When I am ready to archive the disk (file it on the shelf with no expectation of writing anything new to it), then I select option 3 – close the CD so that it can be read on any computer. On the other hand, when I want to copy stuff to other computers in my office, I select choice 2 so they can read the CD, but the option of adding more files to it later is still possible.

You can even copy a newer version of a file to the CD-R disk using Windows Explorer. When you do, Windows 9x will ask you if you want to overwrite the older version, just as it does with a floppy. If you say yes, it does not actually overwrite the data on the CD (space on a CD-R can only be used once). Rather, it copies the new file version to the CD and creates a new directory entry for it that replaces the directory entry for the old file version. Remember, when you erase a file from a CD-R, you do not actually erase it. The proof of this is that, when you erase a file from a CD-R disk, no additional space is freed up, because the data is still there, even though it is not accessible under ordinary circumstances. An erased file can be recovered (or read by someone if you throw the disk into the trash). If you are security conscious, physically destroy any CDs that you discard. Make deep scratches in the data surface (the underside). That will do it.

It will not be long before all new computers have a CD (or DVD) Read/Write drive, but no floppy drive. It is getting easier and easier to use the new technology, and like everything in life, the new will eventually replace the old. Happy computing!

previously working device suddenly stops working.

Click **Start**, then **Programs**, then **Accessories**, then **System Tools**, and then **System Information**. Yes, Microsoft buried the tools using a long, tortuous pathway, perhaps purposefully so that most folks would never find them! If you think that statement is unfair, recall that their corporate stance has often been that there are some things the end user should not know. However, I digress – and should save the “soapbox” for another time...

When you get to the System Information screen, you will be presented with a listing of a summary of some main information. You will see described how you (or someone else) installed Win98, the version of Internet Explorer on your machine and how long

Windows has been up and running. Also shown are what kind of CPU you have, how much RAM you have, what percentage of system resources are free, and how much available space there is on your hard drive(s). Not bad! It represents a fairly comprehensive description of the essential elements of your machine.

There is much, much more. Note the panel on the left. There you find Hardware Resources, Components, Software Environment and Internet Explorer, all under System Information. Each one of these categories will open to reveal sub-entries if you click the plus sign. Furthermore, in many cases the sub-entries themselves will open with a click of yet another plus sign next to them, to expose increasingly nested entries. In this way, you can explore nearly everything Windows knows about itself and your machine. Be careful to stifle the urge to print the whole thing – it can easily produce a document of well over 100 printed pages!

Click the plus sign next to **Hardware Resources**, then click **Conflicts/Sharing**. If you have a late model machine, you will likely find that some of the listed IRQs (Interrupt Request lines) are shared between something called PCI Steering and the device. For example, my IRQ 9 is shared by PCI Steering and my PCI Audio device. My IRQ 11 is shared by PCI Steering and my modem. Sharing is OK. Sharing means the two devices are cooperating to use an IRQ line – and both likely know about the presence of the other. Alternatively, at least, one of the two knows about the other, and is careful not to conflict. This is much like two friends doing homework and sharing a pencil eraser. “Can I use the eraser now?” Cooperation is good – the eraser is

really earning its keep because it is being fully utilized – more so than if only one person was using it.

On the other hand, if you have entries in Conflicts/Sharing highlighted in color (bright blue on my machine) and sporting a warning message, that is a conflict. Two devices are using the same resource but not cooperatively, and one may not know about the presence of the other. That is not good, because both may try to use the same resource (IRQ line) at the same time, which can cause one or both not to work properly. Some of you may remember the old days (!) when you inadvertently put your mouse and modem on the same IRQ. The only predictable outcome in that situation was that you could be certain that both would not work at the same time!

Other categories of interest are:

- DMA -Direct Memory Access – movement of data between a device and memory, without direct control of the central processing unit.

- Forced Hardware - Plug-n-Play is disabled for that device and the resources have been manually entered.

- I/O - memory address ranges for all input/output devices.

- IRQs - there are 16 IRQs, but computer engineers don’t count like normal people, so they are numbered zero through 15. It is amusing to watch a computer engineer count their fingers! “Zero, one, two ... eight and finally, nine. Yep, I have all ten.

- We may continue our exploration of this interesting resource in the future. Happy computing!

No. 98. Managing Your Hard Drive Partition Magic

by Stan Kaplan, WB9RQR
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Today’s new computers come with 20, 30 or 40 Gb hard drives or larger. If you purchased one with the operating system already installed, you may find several 8 Gb partitions (logical drive C:, D: could be 8 Gb with a 4 Gb drive left over as E:, in a 20 Gb physical drive). On the other hand, if you had a slightly older system and later upgraded to a 20 Gb hard drive, you might have as many as five logical drives (C:, D:, E:, F: and G:), each about 2 Gb in size. Worst of all, there may be unallocated space on your hard drive – wasted space that is not available for your use or for use by your operating system. So, what is this all about? How can you manage it all? What are the rules of the game? How can you change stuff to your advantage and preferences?

First, let us consider the “rules of the game”. For a number of reasons, there are limits to the size of the partitions (logical drives) that can exist on today’s (or yesterday’s) computers. Furthermore, the limitations vary with the operating system (DOS, Win 95a, Win 95b, Win 98, Win 98 SE, Win ME, Win NT, Win 2000 and now, Win XP). Moreover, the limitations vary with the logical drive. The boot drive (C:) may have different

limitations than the others in a system (D:, E:, and so on). For example, the C: drive (boot drive) in a Win 98 SE (SE = Second Edition) machine can be no larger than 8 Gb, but a second logical drive (D:) in that same machine can be as large as 2 Tb (a Terabyte = 2,048 gigabytes), so long as a FAT32 file system is used. The file system (FAT16 or just FAT, FAT32, NTFS) is yet another complicating factor – each has its own limitations as well. So it is all complicated, and the rules change depending upon: 1. The age of the computer (because of its BIOS limitations). 2. The size of the hard drive. 3. Whether the drive considered is bootable or not. 4. The operating system in use. 5. The file system in use. That is 25 possible combinations, more than the average person wants to deal with. It is more than I want to deal with!

Whenever there is a need, someone will attempt to meet it. That is what Partition Magic has done. I first wrote about it in this column back in June 1997 (No. 43: A Leash for Windows 95). Since that time, it has become a standard in the industry. It is constantly being improved, and Version 7 is the latest and greatest. There is nothing on the market that can touch it in power, safety and versatility. Next to the Norton utility suite (now called Norton Systemworks), it is the second most important software package you can buy.

Partition Magic is an application program, just like Microsoft Word or Netscape Navigator. You can run it from Windows (any flavor) from START, RUN and then Partition Magic for Windows (a DOS version comes with it, too, in case there is “trouble in River

(Continued on page 7)

Computer Corner: First 100 on CD-ROM

Several years ago, Stan Kaplan (WB9RQR), author of the Computer Corner column in BSSS, released a compilation of the first 48 articles. A very strong response indicated that readers want a complete set of the articles. We now announce the release of the First 100, on CD-ROM.

All 100 articles are in Adobe Acrobat (.pdf) format, and there is an Index of Titles as well. Furthermore, the powerful search and link capabilities of the Acrobat Reader have been harnessed to make use of the CD-ROM a snap.

In the Index of Titles file on the CD-ROM, a click on any title will take you to the complete article, and you can switch back and forth between the articles and Index at will. Moreover, you can perform searches for indi-

vidual words, and the search results will show all articles that contain those words. A click will take you to any article in the list of those found, and the search words in that article will appear as highlighted text. Clearly, these capabilities make the CD-ROM a valuable reference tool for quickly finding topics of interest.

If you don’t have a copy of the Acrobat Reader, or if your copy is old, the latest version (5.0.5) is included on the CD-ROM, along with installation instructions.

The CD-ROM, including all the files and the Adobe Acrobat Reader, will be mailed to you for \$15.00 postpaid. Send your order with payment to the address below. Sorry, no credit card orders. Proceeds will benefit Wisconsin ARES/RACES.

Stan Kaplan, WB9RQR
105 Martin Drive
Port Washington, Wisconsin 53074-9654

No. 97. Win 98’s Built-in System Information

- by Stan Kaplan, WB9RQR
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You may not know that Windows 98 has a wealth of information, plus quite good diagnostic tools, built right into the operating system. Lets explore this a bit this month so that you become familiar with these capabilities. It is not only interesting, but it can also help you to diagnose problems of all kinds. This can be a real timesaver when you install a new device and it will not work, or when a

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Wisconsin Valley Radio Association
(Continued from page 4)
events.

3.. The Club has for sale a number of 100 watt APRS radios. Contact Mark N9MEA or Mike KB9DED if interested.

4.. The WVRA encourages all to visit our Club Website at home.dwave.net/~wvra/. The monthly club meeting notes are published on the website each month along with other items of interest. Also, any items of interest from members to be included on the club website are welcome (minimum of 1 paragraph). Please send to Scott KB9PVI at winter-scott@hotmail.com
New Business

1.. Pictures for club ID's were taken at the February meeting. Jon KC9AEJ has volunteered to bring his digital camera, and ID's will be completed and issued at future meetings. Pictures will also be taken at the March and April meetings.

2.. The following is the program for the March meeting: NOAA Storm Spotter Train-

ing Class - to be held at the Salvation Army, 202 Callon St., Wausau, starting at 6:30 pm. Due to this training class, no club business meeting will take place after this program.

3.. Program for the April meeting: Annual Election of Board of Directors. Your presence is encouraged to run for the Board of Directors and/or cast your VOTE! Also, annual dues are due in April. Annual dues for 2002 are: \$25 single / \$35 family. If you are unable to attend, dues may be sent to: Wisconsin Valley Radio Association, P.O. Box 363, Wausau, WI 54402.

4.. If you know of any Hams who are not members but may be interested in joining, please invite them to attend any program or meeting to check us out and possibly join. Bring a friend!

5.. Mark N9MEA, Scott KB9PVI, and Jon KC9AEJ are starting to work on a grant request for test equipment to maintain club systems.

6.. Lew K9JPS has volunteered to write a comprehensive WVRA history. We will loan

the club archives to him so that he may conduct research of our club which was incorporated in 1939. Please contact Lew if you have any information, pictures, and/or documents that he may be able to use. Thanks Lew and good luck!

7.. FCC License testing will be conducted at St. Mary's Catholic School in Tomahawk, at 8:30 am on February 23, 2002. The school is located on HWY 86 on the way into town. Talk-in on the Tomahawk Repeater.

8.. MS Walk will be held on Sunday, April 14, 2002. Start at Marathon Park. Approximately 8:30 am to 1:30 pm. Volunteers are needed to provide safety communications for this event. Please see Jack N9LIA if you are able to assist.

9.. Please mark you calendars: Field Day 2002 will be June 22-23. This is a fun time and a great opportunity to learn about setting up an emergency communications station, and operate on VHF and HF even if you do not have a license or privileges for HF!

Meeting adjourned at 8:00 pm. Motion

to adjourn: N3FDE Second: N9MO

The next meeting will be a special program on Tuesday, March 5, 2002, at the Salvation Army, 202 Callon St., starting at 6:30 pm. This is the NOAA Storm Spotter Training Class. There will be no WVRA business meeting conducted after this program, and no notes will be available for March.

The April meeting will be Tuesday, April 2, 2002, at 7pm at the Marshfield Clinic - Wausau Center cafeteria (our regular meeting site). Due to new security procedures, please park and enter from the parking lot and main front entrance on the East side of the building. Call in on the 2m club repeater if you need directions: frequency is 146.64 (pl 114.8).

See you at the Weather Spotter Training Class on March 5. Don't forget to come out and VOTE, VOTE, VOTE, at the April 2 meeting.

Respectfully submitted,
Greg Barr - K9MCZ (k9mcz@arrl.net)
WVRA Secretary

COMPUTER CORNER

(Continued from page 5)

City” and you cannot get into Windows). It comes up with a graphic map of the partitions in your system, and allows you to manipulate them in almost any way. You can merge partitions (without loosing the data!), split them, or convert from FAT to FAT32 and vice versa (without loosing data!) and more. It sports wizards, too, that will analyze your system and suggest steps to improve efficiency and space. Then, with your permission, it will go ahead and make the necessary changes. You do not need to know very much about computers to tune your system for maximum power. Most important, it is appropriately conservative and safe. Although it reminds you to back up your data, you can trust it. I have never lost data while using it, nor have I ever heard of anyone who did.

Make no mistake. If you manipulate partitions using the standard way (FDISK.EXE), it will erase all the partition’s data, without fail and with absolutely no hope of recovery (unless you have the FBI’s labs at your disposal). Furthermore, after applying FDISK to a drive, you must then do a high level FORMAT of the drive before it is ready to hold data. Partition Magic does all this automatically, and existing data is not destroyed. Goodbye, FDISK, cross my path no more! Partition Magic’s system requirements are modest, too. It will work on a 486 machine with 32 Mb of RAM running Win 95 or 98. It comes on CD-ROM, so you must have a CD-ROM drive in your machine to install it.

Here is an example of its use. My 500 MHz Pentium III machine was getting a little tight – one partition was down to only 20% free space. I invoked Partition Magic (PM) to see what I could do. Voila, I had 1.7 Gb of unallocated space – room on the hard drive that had never been assigned a drive letter and was therefore unavailable for use under any circumstances. I asked PM to create a new partition, a new logical drive with the designation G:. It did so, then rebooted. When Win 98 SE started again, PM popped up and reminded me that drive letters had changed. Because I had added a new G: partition, my CD-R drive had changed from G: to H:, and my CD-RW drive had changed from H: to I:. PM wanted to know if I would like it to fix all software to reflect the changes. I, of course, accepted the generous offer. A component of PM called Drive Mapper then went through every single software reference on the machine, including the Windows Registry, and made the changes. It did this in a very logical way – first changing all references from H: to I:, and then in a second pass, from G: to H:. It took about 5 minutes. Then it suggested another reboot to invoke all the changes. Again, I accepted the suggestion. On rebooting, everything was fine, and there was an additional 1.7 Gb of space to use. Amazing! To do this using FDISK and changing drive letters by hand would have taken a minimum of several days of work, plus untold hours after that fixing bugs resulting from the drive letter changes. PM did the job in well under 30 minutes, including the time needed for reboots.

As an aside, Drive Mapper used to be a separate program by a separate company. Powerquest Corporation (which owns Partition Magic), saw the utility of Drive Mapper so they bought the company and incorporated the software into PM. Very nice indeed.

Finally, PM also includes another utility, PQ Boot, which permits you to have multiple operating systems on your machine. I have DOS and Win 98 SE on mine. You can have DOS, any version or release of Windows (including XP), Linux and several other operating systems on a single machine. At boot time, you simply select which one you want to use from a menu. A nice touch! That way, for example, you could install XP and play with it while still having your old Win 98 SE there if you need it. If you keep all your creations on a drive other than C:, you can even access the data with the different operating systems. The best of all possible worlds. Happy computing!

FROM ARRL LETTER

Wisconsin SM urges hams to push for governor's signature: Wisconsin Section Manager Don Michalski, W9IXG, is calling on amateurs in his section to urge Gov Scott McCallum to sign AB368, the Amateur Radio FCC PRB-1 Amateur Radio

Antenna Protection Act. "If you have not sent a letter or e-mail to his office supporting AB368, please do so now!" Michalski said this week. He said McCallum's recent comments on emergency preparedness and public safety offer an opportunity to remind the governor that amateurs "are in concert with the governor's efforts to back our emergency services, and that we amateurs provide a valuable, free service" in supporting emergency response efforts. Once the measure reaches the governor's desk, he'll have until the end of April to sign the legislation.

Additional information on AB368 is on the Wisconsin legislative Web site <<http://www.legis.state.wi.us>> (under "2001 Legislative Activity" click on "Enrolled Bills" and then on "Enrolled AB368" at the left). To contact Gov McCallum, send e-mail to wisgov@gov.state.wi.us, fax 608-267-8983, or mail to The Office of the Governor, 115 East State Capitol, Madison, WI 53702.

Amateur Radio Emergency Communications Course registration: Registration for the Level I Amateur Radio Emergency

Communications Course (EC-001) will open Monday, March 4, 2002, at 4 PM Eastern Time. Registration for Level II will open on Monday, March 11; registration for Level III will open March 18. Courses must be completed in order, starting with Level I. To learn more, visit the ARRL Certification and Continuing Education Web page <<http://www.arrl.org/cce>> and the C-CE Links found there. For more information, contact Certification and Continuing Education Coordinator Dan Miller, K3UFG, cce@arrl.org.

From The ARRL Letter

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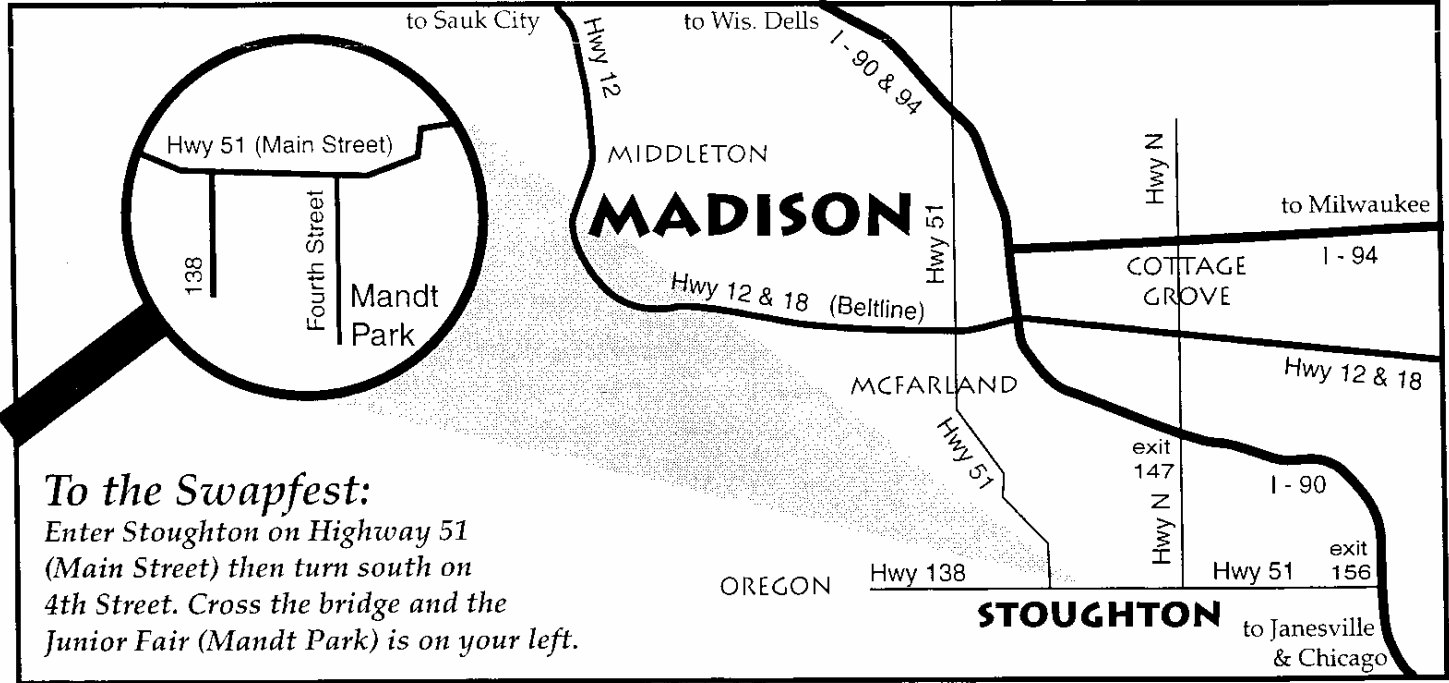
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COMPUTER CORNER

No. 99. Win 98’s Built-in System Information - Part II

- by Stan Kaplan, WB9RQR
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Port Washington, WI 53074-9654
(262) 284-9346
skaplan@mcw.edu

A couple of months ago we explored Windows 98’s diagnostic tools, which are built right into the operating system, albeit hard to find. This month, let us go a bit more in depth, which will expose you to some very powerful diagnostic tools that can help you to tune your system to peak performance as well as solve problems.

Again, click **Start**, then **Programs**, then **Accessories**, then **System Tools**, and then **System Information** to get to the basic screen. We saw earlier that this presents you with a listing of a summary of basic information - how Win 98 was installed, the version of Internet Explorer in use, how long Windows has been up and running, the type of CPU in your machine, and so on. We went through the three major divisions shown in the left panel, **Hardware Resources**, **Components** and **Software Environment**.

This time, we will ignore those three major divisions in the left panel. Instead, click **Tools** at the top of the screen, then **Direct X Diagnostic Tool**, which will be present if your machine is multimedia ready. You will probably see eight or nine tabs (the number depends upon what is installed in your computer, so don’t be upset if something I describe here is missing). Click **System** if it is not already shown. Again, some basic information is presented – date/time, computer name, operating system, language, CPU and speed, memory (this is the only Win98 utility that shows the true amount of RAM in your machine!), size of the page (swap) file and the Direct X version. Now click **Direct X Files**, which will show you file versions and dates. If present, the **Direct X Media Files** and **Direct X Drivers** tabs will also show you file dates and versions. Next, click **Display**, which will show details of both your video card and monitor, plus the installed drivers for these devices. If you have a multimedia-capable machine, you can test its ability by clicking the **Test Direct Draw**, **Test Direct 3D** and **Test AGP Texturing** buttons. Each will put your video system and monitor through a series of tests that you can watch on the screen, with a summary of any problems encountered.

Similarly, explore the other tabs – **Sound**, **Music**, **Input** (music input devices such as a synthesizer or electronic organ) and **Network** (attachments to a modem or direct to the web for Direct Play). The Sound and Music tab will also have some buttons that will permit you to test these systems. Finally, the **More Help** tab will give you a way to troubleshoot any Direct X problems that you found.

Pretty neat stuff, huh? Moreover, that is just the beginning! Close the Direct X Diagnostic Tool (you may need to start the System Information utility from scratch), and click on **Windows Report Tool**. This is a software device that allows you to report problems to Microsoft, and it will even automatically collect relevant data about your machine for them to help in their diagnosis. Truthfully, this is not a very useful tool and I don’t recommend it. Close it, and move on to a much, much more valuable too, the **System File Checker**. If your machine is acting wacky-doodle and you eliminate a virus infection as a cause, use this to check your system files. If any are corrupt or missing, Win98 will identify them and prompt you for its CD-ROM, so the files can be restored. This one tool can save you from having to reinstall Windows 98, a real time saver, indeed. Way to go, Microsoft!

Next is the **Signature Verification Tool**, which looks for files that have been granted a Microsoft digital signature. When this signature is present inside the file, it means that the file is an unaltered copy of the original. Several (but not all) system and application files (.EXE, .SYS, .DLL, .VXD and others) are signed.

The **Registry Checker** does just that, making sure that this most vital of all files is not corrupt or incorrect. Did you know that the Registry is so important that Win 98 makes a new copy of it each time you successfully start your machine? That is why there is a tool to make sure it is healthy.

Dr. Watson takes a snapshot of your system, whenever a system fault occurs. It identifies the software that caused the fault, and may even be able to offer suggestions concerning how to fix the problem.

The **System Configuration Utility** lets you select the type of startup you want (full, selective or diagnostic). It will also let you look at and alter CONFIG.SYS, AUTOEXEC.BAT, SYSTEM.INI, WIN.INI and the Startup Group. A good, centralized way to alter these files during troubleshooting operations.

ScanDisk is the old 1990s DOS tool for identifying disk problems that has been newly updated for use with the version of DOS that underlies Win98 (Version 7). It is useful, and should be run from time to time. Finally, the **Version Conflict Manager** allows you to restore original files that were replaced after Win 98 was installed. This is

particularly useful if a naughty software package you installed has overwritten a device driver file that worked with a newer version that does not. The manager will allow you to restore the original, good driver.

I hope this has given you a good overview of the very powerful utilities that come with Win 98. Overall, this is my take: Windows 98 is a very good Graphical User Interface/DOS software package. The utilities described here, when used in conjunction with the third party software package Norton SystemWorks to detect and repair problems, can keep your machine stable, running and productive. The question is, why did we have to wade through two versions of Windows 95 and a previous version of Windows 98 to get our money’s worth? Happy computing!

Net/Rom Node Information for the Sysop - Part Ten

by Andy Nemec, KB9ALN

This is part 10 of a series designed to help node Sysops learn more about the popular TheNet X-1J series of nodes. We'll skip over the more common user commands and devote our discussion to commands used by the Sysop. In this part, we will discuss the IPStats, L3MHeard, and Links commands.

IPStats

This command can best be compared to one that is familiar to most veteran Node operators - Parm.s. Parm.s is general parameter dump command that dispenses the settings of various node operating parameters, such as TXDelay and routing timers. In the case of IPStats, it dumps the TCP/IP specific

operating parameters and statistics. It will give a node operator a good idea of how well the node is operating, and what kind of load it may be experiencing. It can be very helpful to occasionally save this information dump and evaluate it from time to time to see just how well the node is operating.

When you view the IPStats information dump, it will appear as a string of 20 numbers separated by spaces. There is no text associated with it, you will need to have a cheat-sheet handy to "decode" it.

Here's the general form of the information dump after you issue the command "IPStats", with output from the node listed as N1, N2, etc:

N1 N2 N3 N4 N5 N6 N7 N8 N9 N10 N11
N12 N13 N14 N15 N16 N17 N18 N19 N20

And here is what each of the numbers you'll see means.

N1 displays what the default AX.25-level IP connection type is - Virtual Circuit or Datagram- for both the radio and the serial ports. It is a number from 0-3. Here's what these numbers mean:

- 0 = Mode Virtual Circuit is used on both ports, radio and serial
- 1 = Datagram mode on radio port, Virtual Circuit on serial port
- 2 = Virtual Circuit on radio port, Datagram Mode on serial port
- 3 = Datagram mode on both ports, radio and serial.

N2 displays if IP Routing is enabled on the node. The number 0 indicates that routing is disabled, 1 indicates enabled.

N3 is the "Time-to-Live" value. This is the maximum number of hops, or relaying nodes, that

the IP packet will pass through. Once this value is exceeded, the packet is unceremoniously dropped, ie., it "dies".

N4 is the number of received IP frames

N5 indicates how many IP Header errors were received by the node

N6 shows the number of IP address errors the node received

N7 is the count of IP Datagrams (packets) that have been forwarded.

N8 shows a count of protocols that the node has heard, but can't identify.

N9 is another counter, showing the number of dropped IP frames

N10 counts the number of IP frames delivered

N11 is the number of IP requests for output

N12 shows a count of the IP datagrams dropped by the receiving nodes

N13 is the number of datagrams refused due to no route available

N14 is a count of IP reassembly timeout errors

N15 tells how many times it experienced an "IP Reassembly Required" error

N16 is how many times an IP datagram was successfully reassembled

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Andy Nemec, KB9ALN, Editor—453 Cottage Grove Avenue—Green Bay, WI 54304—e-mail: kb9aln@juno.com

WAPR News - March, 2002
by Andy Nemec, KB9ALN

Hello, everyone. I am sure everyone knows about the passing of Jim Romelfanger, K9ZZ and the incredible commitment he had to the BSSS. Jim was more than a part of ham radio in Wisconsin, he was a force. We'll all miss him - there was no one else like him.

It sure is good to see the BSSS back in print, even though Jim's presence will certainly be missed. I enjoyed working with him and certainly miss him.

Because of the missing issues, I will be combining the missing months into one super-sized news report. The Node series continues, of course, and the missing parts will be printed on a space-available basis.

Now, on to the news, starting with October. You'll remember that I had mentioned the "Code Red" virus/worm that had been making the rounds on the internet at that point. Since then, we've had experiences with other worms and viruses and that brings up something that we, as packet network operators should think long and hard about. The reliance of our packet network on the Internet to complete our packet linkages.

One problem that became apparent during October was that the Amateur Internet Router, responsible for helping us complete amateur packet networks via the internet, was flooded with traffic, bogged down, due to the spread of these viruses and worms. At one point, no packet traffic of any kind could get through.

This again points out the vulnerability of the internet when it comes to packet forwarding and the completion of network linkages. At the risk of sounding alarmist, I say we may want to carefully consider our role as packet operators in emergency situations. Can we handle traffic should the internet become unavailable to us for some reason? Are we ready to do our part in handling emergency traffic should (heaven forbid) another disaster occur? Are our networks up to the task? Are our BBSs and nodes configured correctly? And are our nodes capable of operation on emergency power? These are things to consider now, before anything else bad happens.

It's good to think about these kinds of things for any potential emergency situation, not just for internet problems or something related to terrorism. While we were all captivated by the biggest news story most of us have ever seen on Spetember 11th of last year, Amateurs were also dealing with other, more frequently seen disasters at the time of the terrorist attacks.

We must be ready to do our part should any disaster, whether it be the a tornado, wildfire, flooding or hazardous chemical spill or something as unusual and insane as we saw on September 11th. This is something that we have to think about in our role as emergency communicators.

On to something more pleasant. On November 4th we held a WAPR meeting at the Fox Cities Amateur Radio Club Swapfest in Menasha. A good time was had by all, and the meeting minutes are included in a side article.

Also in November, I announced the creation and activation of the WAPR web site. It has news archives, the "Using the Wisconsin Network" series, as well as the "Netrom Node Information for the Sysop" series. There are other features on there as well (like a packet primer series), so you may want to check it out. Look for it at:

<http://members.gbonline.com/~kb9aln/wapr>

In the near future, I plan to add a node map that was kindly drawn by Aaron, KB9QWC to the page. It will be downloadable in PDF format. This means you will need to have Adobe Acrobat Reader on your computer to look at it. This is a freely available program - you can get it from:

www.adobe.com/products/acrobat/readstep2.html

Thanks a bunch to Aaron for taking the considerable time to make this node map available.

Also in the month of November, I mentioned the new ARES packet internet mailing list. Ray Meyer, N9PBY arranged for this and already it has generated a lot of interesting discussion on the state of Packet Radio with regard to Emergency Operating. To subscribe to the list, simply send an E-Mail message off to:

wi-arespacket-subscribe@yahoogroups.com

You can leave the subject and body of the message blank. In fact, you may want to erase your signature, if you normally have one on your outgoing E-Mail. That's because this is all done by machines, and it's best to not confuse them.

You'll get a return E-Mail message asking you to confirm your desire to join the list. After you confirm, you'll get a welcome message with instructions on how to send mail to the list, and how to unsubscribe should you wish to do that at some point.

On another topic, Thanksgiving weekend Joel, N9BQM replaced the TNC used for the backbone connection on 440 MHz at the Rudolph node site. Aaron KB9QWC reported that there was now a solid connection between #RUD4:W9DQA-5 in Rudolph and #446OG:N9WBR-4 in Ogdensburg (Central Waupaca county near Iola). This means that there is a much more reliable connection between two different parts of the packet network - Central and some Western parts with the Eastern part.

In January, Ray, N9PBY reported that there's a new backbone node on the air in the town of Wayne on UHF at 9600 bps. The alias is #WAYN4, and the call-sign is WB9DLT-4. It's intended to help complete the state-wide packet radio network and make linkages where none have been for a long time. Thanks go to Virgil, WB9DLT and Al, N0GMJ for making this possible.

Speaking of backbone and packet network expansion, Fon-Du-Lac is also making a little news. Although nothing is on the air just yet, a location is being scouted, and I'm told and it's a matter of time before it will help complete the linkage between the North-Eastern and Lake shore segments of the Wisconsin packet network with the South-Central and Madison area network segments. I'll let you know here when it's on the air and all of the pertinent details.

Late word has it that there was an interference problem at one proposed site, and a new one is being sought. As more info becomes available, I will report it here.

The goal of all of this is to make a big circle of backbone nodes throughout the state. We've still got a long way to go, but these two nodes would represent significant progress. Once this circular route is in place, we have redundancy and the ability to route around any temporarily failed network nodes. This is not only a boon to the casual packet user, but is especially crucial to operators who use packet radio as part of their emergency communications services. Of course, that's one are where packet radio can be a definite plus.

We can (almost) always use more backbone nodes. One area that we consider crucial is the Wausau area. Currently, we need to link the Central and South-Western segments of the packet network to the North-Central and North-West segments. A backbone node in this area would accomplish exactly that. If you know of someone who has a good location in this area, and is willing to host a packet node, please contact Joel Papke, N9BQM. You can reach him via E-Mail at:

jpapke@badger.tds.net

This would go a long way toward enhancing emergency communications in the North Central and North Western parts of the state, in addition to the Central Wisconsin area.

Recently we got some bad news from Len, N9QIP that the nodes in Green Lake were taken off the air due to a power problem. When they return, I will report that here.

In more recent news, the state of the Wisconsin Network was tested in a drill for the Point Beach Nuclear Power Plant on the 12th of February, and the results were not encouraging. In the past, we were able to make connections with the station at the State DEM in Madison, but not this time. We had hoped to use BBS forwarding circuits to exchange messages, but there were problems here, too.

The one thing that came out of this was that we have a great deal to do in this department. Not only should we be building more network links, but perhaps we should be re-thinking our processes and the way we transfer messages. This will certainly be a topic of conversation in packet circles in the coming months.

Lately I have gotten a few messages concerning this. There are at least two people who suggested we use TCP/IP and other network transport methods rather than Net/Rom and other current

technologies.

What do you think? I am always interested in your comments. feel free to mail me at one fo the addresses at the top of this page.

There is also good news for the people of Marintte county and points further north. The #446CR node in Crivitz has been repaired and is back on the air. It sure was nice to see familiar calls from the folks in extreme Northern Wisconsin and the U.P. back on the heard lists.

One of those calls was N8QWG, Leroy in Crystal Falls, Michigan. He tells me that they are trying to find the time to get the MIIRN node back to operational status. That node is located in Iron River, Michigan. We're looking forward to that, as this helps link the Houghton area by radio to the rest of the U.P., and then Wisconsin.

Red N9GHE has his backbone node in Mani-towoc back on the air after repairs. This lakeshore node linked Algoma, Green Bay and the Valley to Sheboygan and Port Washington. Red's BBS is still in need of updating, however, I am working on that and it should be ready to go very soon.

One more note before we close this extended news report. We are working on lining up a location and date for a WAPR meeting. This one will feature election of officers for the coming term.

Our current chairman, Joel Papke N9BQM, has announced that he will not seek another term. He deserves our thanks for his efforts to maintain and advance WAPR at a time of decreasing packet activity. It's not easy to pilot a ship through troubled waters, and Joel not only did this well, but even managed to make some good progress during his years at the helm.

One was getting WAPR to be recognized as the official packet radio coordinating body in Wisconsin by the National Frequency Coordinators Conference (NFCC). In addition, Joel oversaw a good amount of network expansion at a time when other locations were seeing nodes die off and forwarding routes go away.

Joel deserves our thanks for a job well done, and our hopes for an easy and fun "retirement" from office. I am sure he will be busy with other things, though.

That's all in this extended news report. As always, I am pleased to pass along your news to other packet people through this column. If you have any news or comments, send them to one of the addresses at the top of this page.

Until next month, 73 from Andy.

Net/Rom Node Information for the Sysop

Part Eight
by Andy Nemec, KB9ALN

This is part 8 of a series designed to help node Sysops learn more about the popular TheNet X-1J series of nodes. We'll skip over the more common user commands and devote our discussion to commands used by the Sysop. In this part, we'll look at the HOST, HOSTALIAS, INFO, IPADDRESS and IPBROADCAST commands.

HOST

This command is an interesting one in that it offers a couple of interesting options. You can think of it as being exactly like the BBS command, but it also has an additional option that can make for an interesting node configuration.

In the customary multiple-node ("Nodestack") configuration, the RS-232 ports of each TNC are connected together so that one node can connect to another. For example, you can have a VHF LAN node connected to a UHF Backbone node, and a user can connect from one node to another.

The serial port can also be connected to a computer, so that the node's parameters can be manipulated on-site. One can also connect a serial printer up to this port.

In this case, a remote user can issue the "Host" command and can send a message to the attached computer or printer. This feature, while interesting and novel, probably would not see any use in typical node installations.

It is more likely to be used in the same manner that the BBS command is used. When this command is issued by a user, they will be connected to a designated BBS or TCP/IP station. The connection will be made to the AX.25 or Net/Rom (Node) port

of the BBS or IP station. The Sysop command syntax is identical to the BBS command syntax for the Sysop, when connected to the node in the Sysop mode. Here's a command summary:

HOST ?

will return the current call-sign of the designated host or BBS, or return with the response "HOST is not set".

HOST *

will clear the existing HOST entry. As a matter of habit it is probably best to issue this command first, to make certain you flush out the existing entry.

HOST WX9APR

would set the designated host to WX9APR. A user who issues the HOST command would be connected to this BBS. If this is set to an alias, Net/Rom connection is made, otherwise it is a standard AX.25 connection.

HOSTALIAS

This operates identically to the BBSALIAS and DXALIAS commands. If the node is set up to respond to additional aliases, it will answer on behalf of the designated HOST and connect the user to it, acting as an intermediary. To the user, this will appear as a direct connection, even though it really isn't. Here's the command syntax:

HOSTALIAS *

clears the current HOSTALIAS entry. You can use it to flush out the old entry when changing to a new HOSTALIAS for example, or when you've made a typo and need to re-enter the HOSTALIAS.

HOSTALIAS WX9APR

Sets the HOSTALIAS to WX9APR. If a user's packet station attempts to connect to WX9APR, the node will answer for WX9APR and make a connection to that station. A valid alias can also be used, for example, IPBBS. This way, the node can make connections to 3 different service-oriented BBSs - the customary "normal" BBS, a local DXCluster, and an IP-oriented BBS named as a Host.

INFO

This is familiar to most Node operators. It sets what the user will see when he or she issues the INFO (or "I" abbreviation). Usually, this is the location, sponsor of the node, maybe the grid square and perhaps other information. The command syntax is identical to the BTEXT and CTEXT commands, and also has the same size limitation - 80 characters including spaces and control-characters. The command syntax is the same:

INFO *

clears the current text. If you want to completely change the text, rather than just add to it, this is the command you would use. Sending the following to the node:

INFO WAPR Network Node in Thimble Creek, Wi - 145.090 VHF LAN

changes the info text so that the user will see this when he or she issues the Info (or "I") command:

WITHIM:WX9APR-1} WAPR Network Node in Thimble Creek, Wi - 145.090 VHF LAN

It's helpful for packet operators to have this information when the node sysop has taken the time to enter it. In instances where it hasn't been set, the traveling packet operator does not know where they've "landed", so to speak.

IPADDRESS

As you'd expect, this sets the IP Address of the node, quite simply. IP Addresses are assigned by IP address coordinators to packet operators that request them. They are free - there is no charge for

obtaining one. In Wisconsin and the Upper Peninsula of Michigan, we have local IP address coordinators and a State coordinator. If you'd like to obtain an IP address, contact me (kb9aln@gbonline.com or KB9ALN@KB9ALN.#GRB.WI.USA.NOAM). I will either assign you an address, or refer you to your local IP Address coordinator.

IP addresses contain 4 sets of numbers separated by periods. The numbers range from 0 to 255. IP addresses in the Amateur Packet world all start with 44. In Wisconsin and the UP of Michigan, they all start with 44.92. For example, my first IP address is 44.92.20.9. The addresses are assigned based upon location and operating frequency. It is important that you do not pick one at random - they must be assigned. In addition, there are certain conventions that follow the internet conventions, and your IP Address coordinator will assign addresses based upon the function of the node.

If you do obtain an address for your node, here's how you would set it:

IPADDRESS 44.92.185.1

Sysops or users can see the IP address of the node simply by typing IPADDRESS with no other text. The node would then respond with:

My IP address is: 44.92.254.1

Take note that this is example address is not assigned, and it's very important that you not use this particular address - you must only use an address that is assigned to you.

A reminder - we'll cover all of the aspects of setting an X-1J node up for TCP/IP operation at the end of this series. This discussion will center on understanding TCP/IP and how the node treats it. Don't let TCP/IP parameters intimidate you, they're not as difficult to understand as you'd think.

That's all for this part. Next month, we'll continue our alphabetical exploration of the Sysop commands for these nodes. Until then, 73 from Andy.

Net/Rom Node Information for the Sysop

Part Nine by Andy Nemec, KB9ALN

This is part 9 of a series designed to help node Sysops learn more about the popular TheNet X-1J series of nodes. We'll skip over the more common user commands and devote our discussion to commands used by the Sysop. In this part, we'll look at the IPBROADCAST and IPROUTE commands.

IPBROADCAST

This command sets an IP address that will be ignored by the node. The most common reason may be some IP packet programs that send out routing information that isn't used by the node and may confuse it.

First, some background info. A Network Address is used for routing purposes, and it is derived from the block of IP addresses used in a particular sub-network. Here's a brief explanation of the sub-net concept as it relates here.

You'll notice that you and your neighbors have similar IP addresses. For example, the Green Bay area IP addresses range from 44.92.20.1 to 44.92.20.254. They all have a common element to their addresses - the dotted number combination of 44.92.20.

When referring to the Local Network Address for routing purposes, it is written with a 0 at the end of this dotted number combination. For example, the Green Bay Local Network Address shown above is written as 44.92.20.0.

When entering the IPBroadcast address in the node, you will need to be in the sysop mode and you'll enter the local sub-net's Network Address. The command syntax is:

IPBroadcast <Local Network Address>

In the case of our Green Bay example we used above, this would be:

IP Broadcast 44.92.20.0

For those of you who have some experience with IP networks, you may be a confused a bit. Normally, a broadcast address is different than what is shown here. Yes, this command could have been named more appropriately. However this is what the X-1J node needs, and this is what we give it.

IPROUTE

This command tells the node how to route IP packets to their destination. At first, this task can seem rather daunting, but once you get the hang of it, it all makes sense.

In order to effectively route IP packets, we need to use 2 forms of the IPROUTE command. One is intended for individual hosts with their own IP addresses. The IPROUTE command syntax would look like this to enter a specific host with it's unique IP address:

IPROUTE (Destination IP Address) (+) (Port 0 or 1) (Gateway IP, if used)

Let's say we have a station with an IP address of 44.92.130.10. It is on port 0, the radio port. We wish to add this, but need to use 44.92.130.9 to get

to the 44.92.130.10 host. First, we need to enter a route to the gateway, or relaying station address. In this case, our IPROUTE command would look like this:

IPROUTE 44.92.130.9 + 0

This adds a route to the 44.92.130.9 host on the radio port, port 0. Now we can add the final destination with this version of the command:

IPROUTE 44.92.130.10 + 0 44.92.130.9

This will add the route to 44.92.130.10, (and use 44.92.130.9 to get to it) via the radio port, Port 0

If we wished to remove this route, we would send the command:

IPROUTE 44.92.130.10 -

We would not need to remove the gateway entry, unless specifically needed.

The other IP routing task is meant for accessing other networks, represented by blocks of IP addresses and the number of significant bits. Here is a brief explanation of networks and the number of significant bits.

First off, IP addresses are, for the purposes of our discussion, 32 bits long. When you have an IP address of 123.234.123.234, each section of the address is 8 bits long. Each of the four groups of numbers separated by dots are 8 bits long. The entire IP address is 32 bits in total.

What IP routing in a node does is send IP packets to a particular place based on how many bits of the address are specified. We can specify all 32 bits - as we did in the example above - and send an IP packet to a particular station address, or we can send a group of IP addresses on to another station or node. The other station or node handles it from there.

OK, so how do we specify a particular network address block for routing purposes? Here is a guide with examples that specify the number of significant bits:

44.0.0.0 has 8 significant bits and specifies any address that begins with 44. This is the 44 network. All Amateur Packet Radio stations with IP addresses begin with 44 (except in special cases).

44.92.0.0 has 16 significant bits and specifies any address that begins with 44.92. This is the 44.92. sub-network, which is Wisconsin and the UP of Michigan.

44.92.130.0 has 24 significant bits, and specifies any address that begins with 44.92.130. This block of addresses is currently not assigned, and is only used for example purposes. It, too is a sub-network.

So in order to route to a block of IP network or sub-network addresses, we use this form of the IPROUTE command:

IPROUTE <ip address></bits> <+> <port number> <gateway address>

Here's an example of how to route to the 44.92.130 block of addresses, using 44.92.130.1 as the gateway to all other 44.92.130 series of IP addresses. We'll be using the Radio Port 0. We need to add a route to a gateway first, before we can route through it. We do that like this:

IPROUTE 44.92.130.1 + 0

That takes care of the station we will be using as a gateway to our fictional 44.92.130.0 network. Now we add the network route with the command:

IPROUTE 44.92.130.0/24 + 0 44.92.130.1

Similarly, we can route other networks, using the network addresses, the number of significant bits, the port number and the gateway address.

To remove a route to a network, we need to specify the network address, and the number of significant bits. Here's an example:

IPROUTE 44.92.130.0/24 -

We don't need to specify a port number or gateway when deleting a route.

For a more complete explanation of networks and sub-networks, see the Wisconsin/UP IP coordinator's page at: www.gbonline.com/~kb9aln/4492-ip/

That's all for this part. Next month, we'll




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Yellow Thunder Amateur Radio Club

WB9FDZ (Original Club Call)
K9ODK (Robert L. Prine Memorial Call)

The February meeting of the Yellow Thunder Amateur Radio Club was called to order at 7:42 p.m. by Steve Schulze, N9UDO. (the meeting was scheduled to begin at 7. However, finding someone with a key to unlock the door was somewhat problematic). Minutes from the January 8th meeting written by the "acting (very acting) secretary" Pete Sweeney were approved. Treasurer's report was given by Bill Klinkner, N9KXX who also collected dues for the new year.

Old Business: Steve Schulze reported on the status of the repeater. A new amplifier arrived Friday, was tested, installed and is now on line. Bill Klinkner gave an update on the new Civil Air Patrol unit being established in the area. It will be called the COLSAC CAP for Columbia/Sauk counties.

NEW BUSINESS: Steve Schulze and Bill Klinkner gave a report on the impromptu Brat Stand they ran in Sauk City during Eagle Watch Days at Tom's Pit Stop. They learned a few things and the club split the profits with Relay for Life as some of the food/supplies were leftovers from that event. Club earned \$52.34. There was a discussion on eventually replacing repeater equipment that was on loan to equipment owned by the club.

Meeting was adjourned at 8:05 for a Powerpoint presentation by Tom Kucharski, KA9EWJ on the club's role as the backbone repeater on a secondary basis to the Sullivan WFO for skywarn traffic.

Respectfully Submitted, Raymond J Matlosz,

N9MLZ club secretary

NEXT meeting to be held at the conference room of the Sauk County Emergency Government (basement, assuming the door is unlocked) at 7 p.m. on Wednesday March 7, 2002. EOC is located at the Sauk County Courthouse. Use the West Entrance. NEXT ZILCH brunch is February 24, 2002 at 10:30 a.m. at the Farm Kitchen near Devils Lake State Park.

The following members, guests and presenter were present:

Steve Schulze	N9UDO	Baraboo
William Klinkner	N9KXX	Sauk City
Anne Klinkner	N9PQL	Sauk City
Patrick Klinkner		Sauk City
Tom Harrison	N9PQJ	Reedsburg
Logan Maybee	KB9VYZ	Adams
Barbara Maybee	KB9VYY	Adams
John Maybee	KB9PZL	Adams
Rosie Maybee	KB9PZK	Adams
Tabitha Maybee	KB9PJZ	Adams
Robert Loomis	KB9VSQ	Reedsburg
Lynn Loomis	KB9YOD	Reedsburg
Duane Grotophorst	N9DG	North Freedom
Wayne Burgess	N9UDX	Lodi
Brad Pointon	KB9UMC	Baraboo
Raymond Matlosz	N9MLZ	Reedsburg
Tom Kucharski	KA9EWJ	Elkhorn
Peter Sweeney	WD9JIB	Reedsburg

The January meeting of the Yellow Thunder Amateur Club was called to order at 7:39PM January 8, 2002, with 16 member present. Bill, N9KXX gave the treasurers report. We have \$2,919.00 now, but soon \$2,000.00 will be spend on projects. The main project is the new amplifier for the repeater. This amplifier will enable us to transmit with 49 watts and use only 15 watts of input from the radio. This should solve the severe heat problem which sometimes develops and melts a connection inside the radio. The amplifier was ordered the first part of January and should be by the end of January. Bill also announced that membership dues for 2002 are now being accepted. They are the usual \$20.00 for this year. Steve, N9UDO pointed out that Smoke Signals will be in reorganization for about 6 months because of the death of the editor, Jim, K9ZZ, however the web site would still have it available.

There were two pieces of new business, the first was Sullivan Weather. Steve said that he had had a request from Sullivan Weather to us 147.315 as a backbone for information. He needed the clubs approval before going back to them. It was suggested that this was already a primary frequency for ARES Races, that this might be a future conflict. After much discussion the club suggested that we give a strong yes, but with the advisory of the A/R commitment.

The second new business was a proposal to change the meeting place and days. It was suggested

by Steve and Pete, WD9JIB, that since most of the members of YTARC were also members of A/R that if the meetings were back to back in the same place on the same night it was work better for all, instead of 2 meetings on 2 nights. The plan was to go back to the rotating days (tues,wed,thur) as the club did before and meet at the EOC for both meetings. After much discussion it was decided to try it for 6 months, and change the meeting times to 7:00 PM for YTARC and 8:00 PM for A/R. Therefore the next meeting of YTARC will be Wednesday, February 6, at 7:00 PM, at the EOC.

Steve then brought out that we need to thank Brad Pointon of Pointon Communications for the tower space we enjoy and all the help he has given us.

Bill gave us a heads up on a CAP unit coming in the area. It will be called Lake Wisconsin CAP and serve Sauk and Columbia Counties. He said they are looking for interested amateurs to join in.

Our next meeting will be at the EOC, 7:00 PM Wednesday February 6. Some dates to keep in mind for summer are:

- June 29 and 30, field day
- July 6, Circus train special event
- Aug 10, our ham fest

The meeting was adjourned at 9:30 PM with a motion and second by Len, N9XJG, and Duane, N9DG

Respectfully Submitted,

Tri-County Amateur Radio Club Presents:

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For Information Contact:
Steve Bluem at (715)839-6509
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Ozaukee Radio Club 23rd ANNUAL RADIO AND COMPUTER SWAPFEST

Saturday, May 4, 2002

8 a.m. to 1 p.m. • Circle B Recreation Center
Intersection of Highway 60 and County I
Exams by Badger Examiners, c/o Gary Sharbuno,
5119 W, Willow Rd., Brown Deer, WI 53222
Swapfest sponsored by the Ozaukee Radio Club
W55 N865 Cedar Ridge Drive • Cedarburg WI 53012

Circus City Swapfest

Sponsored by the Yellow Thunder Amateur Radio Club
Saturday, August xx 2002 • 7 am—Noon
Sauk County Fairgrounds • Baraboo, WI

Vendors • Concessions
Camping • Free Parking
Tail Gate Area

\$4.00 — Advanced
\$5.00 — At Gate
\$5.00 — 8 foot tables

Steve Schulze, N9UDO • Bill Klinkner, N9KXX
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<http://www.qsl.net/ytarc/hamfest.htm>

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